## HEMI-SYNC® AND THE PERSONAL COMPUTER: HARDWARE, SOFTWARE, AND METHODOLOGY FOR PHYSIOLOGICAL MONITORING AND PERSONAL DEVELOPMENT

by Dale S. Foster, M.A.

Dale S. Foster is a Ph.D. candidate (abd) in counseling psychology at Memphis State University. He has a master of arts in religion degree in counseling from Harding Graduate School and a B.S. in psychology from David Lipscomb College. He is presently writing his dissertation on the subjective and EEG correlates of Hemi-Sync.

Dale Foster commenced by stating that his view as a counseling psychologist is that everyone is in a stage of development, versus the view of some psychologists that someone is "sick." He said personal development of consciousness, in terms of self-regulation and management, is the main life task of every individual. Further, since total, direct self-regulation of one's consciousness is a virtual impossibility, management of consciousness (being aware of one's patterns of behavior and doing what is necessary to compensate for and adapt them) is equally important in human growth and development.

The frequency following response and binaural beats techniques employed by Hemi-Sync effectively promote both management and self-regulation of consciousness. Referring to the extensive (four-page) bibliography accompanying his presentation, there is ample background and evidence to support that statement. He said management of consciousness with Hemi-Sync occurs when the tapes or tones are used purposefully by an individual to promote a particular state of consciousness, and self-regulation of consciousness with Hemi-Sync occurs when an individual is able to utilize the memory of a state of consciousness promoted by Hemi-Sync to reproduce or deepen that state voluntarily. He stressed that the goal is personal freedom and empowerment of the individual—not creating a dependence on an external such as Hemi-Sync.

Mr. Foster then reviewed the data collected by himself and others regarding the Mind Mirror as a tool for EEG biofeedback. He said that his studies (using the model 201B Hemi-Sync Synthesizer, a Mind Mirror II EEG, and a 20 Mhz IBM AT compatible personal computer) confirmed the effects of binaural beats on Alpha brain waves (the focus of his research).

Noting that the human mind/brain system is an interactive, open structure, Mr. Foster indicated that an interactive Hemi-Sync process will offer a tremendous potential for promoting individual evolution of consciousness. He said he would like to see a combination of Hemi-Sync sounds, EEG biofeedback, and a personal computer—all coordinated by an "expert system" (an

emerging software technology that has decision-making capabilities based on information and probabilities versus algorithm or "exact answer" programming, also called "artificial intelligence"). He described the likely steps in such a system: 1) EEG data gathered, 2) data analyzed, 3) expert system determines appropriate Hemi-Sync signals, 4) Hemi-Sync sounds affect EEG of subject, 5) EEG data gathered and analyzed, 6) Hemi-Sync signals adjusted as open feedback loop continues.

Concluding, Mr. Foster said there are many problems (both hardware and software) to overcome before such a system is functional, but the potential of that system provides some exciting possibilities.

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